

The Systematology of the Spectra of Prompt  
Neutrons of Fission

SOV/89-5-0-11/25

monotonously with the increase of the parameter  $Z^2/A$  of the fissioning nucleus, i.e. the increase of the excitation energy of the fissioning nucleus with increasing  $Z^2/A$  manifests itself not only by an increase of  $\bar{\nu}$ -values, but also by an increase of the hardness of the spectrum of fission neutrons. The variation of the hardness-parameter  $B$  in dependence on excitation energy amounts to about 1 - 2 % per 1 MeV.

2) In order to be able to describe neutron- and  $\gamma$ -emission from the fission fragments simultaneously, it is necessary to know the distribution of the excitation energy of each fission fragment.

The results obtained were discussed with A. I. Leypunskiy, I. I. Bondarenko, and L. N. Usachev; V. P. Kharin assisted in carrying out numerical computations. There are 2 figures, 1 table, and 20 references, 7 of which are Soviet.

SUBMITTED:

July 18, 1958

Card 2/2

AUTHOR: Kovalev, V. P.

56-2-30/51

TITLE: The Measurement of the Neutron Spectra in the Fission of  $U^{233}$ ,  $U^{235}$ ,  $Pu^{239}$  Within the Range of 50 - 700 keV  
(Izmereniye spektrov neytronov deleniya  $U^{233}$ ,  $U^{235}$ ,  $Pu^{239}$  v oblasti 50 - 700 keV)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol 34, Nr 2, pp 501-502 (USSR)

ABSTRACT: The spectra of these fission neutrons were measured by means of a Wilson chamber filled with steam. As neutron sources served samples of uranium-oxo-ic-oxide and plutonium dioxide produced in form of disks of a diameter of 60 mm and a thickness of 2,5 mm, which had been irradiated with a beam of thermal neutrons from a reactor. The method of mounting and the construction of the Wilson chamber are shortly described. With every sample about 30.000 traces of recoil protons are obtained. In the elaboration of the results the distance travelled by the recoil protons was measured with which the direction of the neutrons formed an angle of less than  $15^\circ$ . The distribution of the recoil

Card 1/3

The Measurement of the Neutron Spectra in the Fission of  
 $U^{233}$ ,  $U^{235}$ ,  $Pu^{239}$  Within the Range of

56-2-30/51

50 - 700 keV

protons coming to a standstill in the gas of the chamber on the energy intervals is shown in a table. The lower limit of the energy to be measured is 50 keV. In the transition from the spectrum of the recoil protons to that of the neutrons the dependence of the cross section of the scattering of neutrons on protons on the energy as well as another geometric correction factor must be taken into account. The spectra of the fission neutrons are shown in a diagram. The spectra of the fission neutrons of  $U^{233}$ ,  $U^{235}$ ,  $Pu^{239}$  within the range of energy investigated here coincide within the limits of error (10 - 20%) and are satisfactorily approximated by the formula of B. Watt (Phys. Rev., Vol. 87, p. 1037 (1952))  $F(E) \sim e^{-E/T} \text{sh}(2\sqrt{\omega E}/T)$  if  $\omega = 0,5$  MeV and  $T = 1$  MeV are inserted. The results of earlier works are shortly referred to. The author also determined the ratio between the number of recoil protons within the interval 0,05 - 0,6 MeV and their number at energies of more than 0,6 MeV. The experimental values of these ratios for  $U^{233}$ ,  $U^{235}$ ,  $Pu^{239}$  resp. are  $0,49 \pm 0,04$ ;  $0,53 \pm 0,04$ ,  $0,48 \pm 0,04$  resp. Thus the measurements of the spectra of the fission neutrons within the range of

Card 2/3

The Measurement of the Neutron Spectra in the Fission of 56-2-30/51  
 $U^{233}$ ,  $U^{235}$ ,  $Pu^{239}$  Within the Range of 50 - 700 keV

small energies coincide with the results of a work by V. P. Kovalev, et al. (ref. 4). This proves the final conclusion that the spectra of the fission neutrons of  $U^{233}$ ,  $U^{235}$ ,  $U^{239}$  differ markedly within the range of high energies. There is 1 figure, 1 table, and 4 references, 1 of which is Slavic.

SUBMITTED: September 28, 1957

AVAILABLE: Library of Congress

1. Wilson chambers-Applications
2. Protons-Range-Measurement
3. Protons-Energy-Measurement

Card 3/3

21(7)

AUTHORS: Kovalev, V.P., Stavinskiy, V.S.

SOV/56-35-3-37/61

TITLE: On the Problem of the Calculation of the Spectra of Fission Neutrons (K voprosu o raschete spektrov naytronov deleniya)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 3, pp 787 - 789 (USSR)

ABSTRACT: The present paper calculates the spectra of fission neutrons in consideration of the energy dependence of the cross section of the capture of neutrons by excited nuclei. For the estimation of the energy dependence of  $\sigma(\epsilon, E_0)$  the model of a complex potential was used, which gives a satisfactory description of the total cross section and the cross section of the capture of low-energy neutrons by atoms. For the purpose of estimating  $\sigma(\epsilon, E_0)$  the model of the black nucleus can be used (Ref 6). When calculating  $\sigma(\epsilon, E_0)$  it is necessary to take also the steady variation of the potential at the boundary into account. This is possible by means of the approximated expression  $\sigma(\epsilon) = \sigma_0(\epsilon) T_d(\epsilon) / T_0(\epsilon)$ . Here  $\sigma(\epsilon)$  denotes the cross section to

Card 1/3

On the Problem of the Calculation of the Spectra  
of Fission Neutrons

SOV/56-35-3-37/61

be calculated,  $\sigma_0(\epsilon)$  the cross section of the capture of neutrons by a "black" nucleus with a sharp variation of the potential at the boundary,  $T_0(\epsilon)$  the penetrability of the neutron wave for this potential,  $T_d(\epsilon)$  the coefficient of penetrability for a here given and constantly varying potential. A table contains the values of the ratio  $T_d(\epsilon)/T_0(\epsilon)$  and the quantity  $\sigma(\epsilon)\epsilon^{1/2}$  which characterizes the deviation of the cross section  $\sigma(\epsilon)$  from  $1/\sqrt{\epsilon}$ . The obtained energy dependence of the cross section of the inverse process, by the way, is up to an energy of  $\sim 1$  MeV similar to the function  $1/\sqrt{\epsilon}$ . Basing upon the conditions mentioned, the spectra of the fission neutrons  $U^{235}$  and  $Cf^{252}$  were calculated. For  $U^{235}$  the results of these calculations agree well with experimental results (Refs 8,11). The authors thank A.I. Leypunskiy for the interest he displayed in this work and for discussing results. They further express their gratitude to

Card 2/3

On the Problem of the Calculation of the Spectra  
of Fission Neutrons

SOV/56-35-3-37/61

I.I. Bondarenko and L.N. Usachev for their critical remarks,  
and V.P. Kharin for carrying out numerical computations.  
There are 1 table and 12 references, 5 of which are Soviet.

SUBMITTED: May 10, 1958

Card 3/3

SOV/120-59-2-14/50

AUTHORS: Bonch-Bruyevich, A.M., and Kovalev, V.P.  
TITLE: Fluorometric Measurements on Low Modulation Light Stream  
(o fluorometricheskikh izmereniyakh na nizkoy modulyatsii svetovogo potoka)  
PERIODICAL: Priory i tekhnika eksperimenta, 1959, Nr 2, pp 49-52 (USSR)  
ABSTRACT: This paper was read at the VI Conference on Luminescence, Leningrad, February 1958. The phase-sensing device of a low-frequency fluorometer is described; the instrument is designed to measure fluorescence lifetimes in the  $10^{-3}$  to  $10^{-7}$  range by phase methods. The modulation method is discussed as an aid to fluorometry. Several fluorometers have been described for use in fluorescence decay measurements (Refs 1-6). They all use the principle of measuring the phase lag  $\phi$  between the fluorescent signal and one of the harmonics (usually the first) of the exciting light; they work at high frequencies (5-25 Mc/s) and measure decay times in the range  $10^{-7}$  to  $10^{-10}$  sec, (Ref 7). The method is of high sensitivity even if the modulator is inefficient, because phase-sensing devices have narrow pass-bands; weak fluorescence can therefore be used. The same advantages

Card  
1/6



SOV/120-59-2-14/50  
Fluorometric Measurements on Low Modulation Light Stream

persist even when the decay times are longer, when the brightness in fluorescence kinetics work may be too low for study by other methods. The modulation frequency must here be comparatively low. The reason is that the relative error in the measured exponential decay time  $\tau$  is given by:

$$\frac{\Delta\tau}{\tau} = \frac{1 + 4\pi^2 F_M^2 \tau^2}{2\pi F_M \tau} 2\Delta\varphi_0 \quad (1)$$

where  $\Delta\varphi_0$  is the resolution of the phase detector; the minimum  $\Delta\tau/\tau$  corresponds to  $\tau = 1/2\pi F_M$ . To remove the restriction to exponential decays we have to measure the decay time for several values of  $F_M$ , and to compare the modulation depths of the exciting and fluorescent radiations. The apparatus for the purpose is called a low-frequency fluorometer. An intense light source, amplitude-modulated, is required in order to increase the sensitivity; the passband of the phase meter must also be narrowed. We have used a high-pressure mercury arc (SVDSH-250) and have modulated the current drawn by varying the shunt resistance (Fig 1).

Card  
2/6

SOV/120-59-2-14/50

## Fluorometric Measurements on Low Modulation Light Stream

Fig 2 shows the frequency response of the lamp. The modulation is effective up to about 20 kc/s, and so the lamp can be used at widely spaced values of FM. Hydrogen arcs can be modulated at frequencies up to several Mc/s. Direct modulation enables one to use much more of the total light output than is possible with mechanical, diffraction or other modulators. Fig 3 shows the block diagram of the symmetrical two-channel phasemeter. A null method is used; an appropriate calibrated phase shift is introduced into the intermediate-frequency (1 kc/s) system; the scatterer in the reference channel is selected appropriately. The main indicator is the phase detector, whose time-constant may be varied. The gain and working frequency of the system are adjusted automatically. The automatic gain control eliminates amplitude-phase coupling in measurements on fluorescence lifetime (Ref 8). The intermediate frequency is stabilized in order that the calibrated phase shifter shall work correctly, and to avoid phase errors arising from frequency instability. The passband of the intermediate-frequency system is made very narrow, which

Card  
3/6

SOV/120-59-2-14/50

## Fluorometric Measurements on Low Modulation Light Stream

is important in relation to the automatic gain control system when the fluctuation noise level is high, e.g. when the emission is weak. It can be shown that a passband of 30 cps, with  $\Delta F_M/F_M = 10^{-4}$  at  $F_M = 15$  kc/s, corresponds to an instability in the phase reading in the two-channel system (Ref 8) of about  $1^\circ$ . The automatic frequency control system has an isolating (reactive) tube and a frequency discriminator working at the intermediate frequency; it reduces the instability in the phase reading to  $0.1^\circ$ . The phasemeter system is designed to work over the range from 10 to 20 kc/s; the range can be extended to 100 kc/s with a hydrogen lamp. The overall sensitivity is limited by the residual phase instability of about  $0.1^\circ$ , which corresponds to  $3 \times 10^{-8}$  sec at  $F_M = 10$  kc/s. At this frequency the error in the exponential decay constant does not exceed 10% if  $\tau$  lies in the range from  $5 \times 10^{-4}$  sec to  $5 \times 10^{-7}$  sec. These limits vary with  $F_M$ , as Eq (1) shows; they come closer together if the noise level is high (i.e. if the emission is weak). The limits for nonexponential processes are, of course, somewhat different. The resolving power is of

Card  
4/6

SOV/120-59-2-14/50

Fluorometric Measurements on Low Modulation Light Stream

the same order as that found with high-frequency fluorometers, (Ref 7). An increase in resolving power is desirable, because it would enable us to study fast decay processes with much higher light fluxes than are possible in high-frequency fluorometers. A modulation method of measuring phase shifts may be needed. In this method one switches periodically from observing the fluorescence to observing the scattered light; this switching is synchronized with the switching of a calibrated phase shift in one channel. The principle is illustrated by Fig 4. Here a single channel is used at different times to record the two signals. The output signal from the phase detector has the switching frequency. The noise will not affect the readings if its duration is greater than the switching period. This is a complete translation apart from Figs 3 and 4.

Card 5/6

SOV/120-59-2-14/50  
Fluorometric Measurements on Low Modulation Light Stream

Figure captions are: Fig 1, modulator circuit for a gas-discharge tube. 1) SVD Sh-250 mercury lamp, 2) 6N5S valves (10 in parallel). Fig 2, modulation response of the mercury lamp.

Card 6/6 There are 4 figures and 8 references, of which 5 are Soviet, 2 English and 1 German.

ASSOCIATION: Gosudarstvennyy opticheskiy institut  
(State Optical Institute)

SUBMITTED: June 2, 1958

AUTHOR: Kovalev, V.P.

SOV/109- - 4-3-33/38

TITLE: Laboratory Equipment for the Simultaneous Measurement of the Time Components of the Electromagnetic Field of Centimetre Waves (Laboratornaya ustanovka dlya cdnovremennogo izmereniya vremennykh komponent elektromagnitnogo polya na santimetrovykh volnakh)

PERIODICAL: Radiotekhnika i Elektronika, Vol 4, Nr 3, 1959, pp 545-547 (USSR)

ABSTRACT: In various problems of the electrodynamics it is necessary to measure the spatial distribution of the modulus  $E$  and the phase  $\varphi$  of the electromagnetic field. However, in certain cases it is more convenient to measure these quantities indirectly by determining quantities  $E \cos \varphi$  and  $E \sin \varphi$ ; the quantities are referred to as the time components of the electric field, or the real and the imaginary components of the vector  $\vec{E}$ . The author devised an equipment which is suitable for the measurement of these field components, both quantities being registered either by a recording instrument or by means of indicating meters. The simultaneous measurement of the components

Card 1/3 was made possible by employing a ferrite phase shifter and

SOV/109- - 4-3-33/38

Laboratory Equipment for the Simultaneous Measurement of the Time  
Components of the Electromagnetic Field of Centimetre Waves

an automatic switch which alternately switches the signals applied to two synchronous detectors. The equipment is illustrated in Fig 2. The energy from the investigated field is fed to a probe and by means of a waveguide section is led to a double-T bridge. The high frequency signal in the waveguide section is modulated by an audio frequency by means of a detector. One of the arms of the T-bridge is supplied with a standard signal from a klystron oscillator. The path of the standard signal is furnished with a reversible ferrite phase shifter which is controlled by means of an external longitudinal magnetic field. The two opposite arms of the bridge are furnished with detectors. The signals of audio frequency which are proportional to the real and the imaginary field components are amplified by means of a narrow-band amplifier and then separated by means of two electronic switches; the two signals are registered by two synchronous detectors which are terminated with appropriate indicators. The equipment was employed to determine the field in a waveguide and the results obtained are

Card 2/3

SOV/109- -4-3-33/38

Laboratory Equipment for the Simultaneous Measurement of the Time  
Components of the Electromagnetic Field of Centimetre Waves

Card 3/3

plotted in Fig 3; the dots in the figure correspond to  
the experimental data, while the solid curves were  
evaluated theoretically. The author expresses his  
gratitude to Prof. L.A. Zhekulin for a number of valuable  
remarks.

There are 3 figures and 3 English references.

SUBMITTED: November 15, 1958



KOVALEV, V. P., BODNARENKO, I. I.

"Physical Measurements Utilizing Fission Neutrons from Converters."

paper presented at the Symposium of the International Atomic Energy Agency on Pile  
Neutron Research in Physics, Vienna, 17-21 Oct 1960.

32048

S/051/61/011/005/008/018  
E202/E192

55310 also 1138

AUTHORS: Bonch-Bruyevich, A.M., Kovalov, V.P., Belyayev, L.M.,  
and Belikova, G.S.

TITLE: Study of the kinetics of the sensitised luminescence  
of certain additives in naphthalene crystals

PERIODICAL: Optika i spektroskopiya, v.11, no.5, 1961, 623-628

TEXT: Studies of photoluminescence of naphthalene crystals  
were carried out using the following activating additives;  
anthranilic acid (AK); 1.4-diphenylbutadiene-1.3 (DPB);  
1.6-diphenylhexatraene-1.3,5 (DPH). The time of decay of the  
activating additive was measured by means of phase fluorometer.  
The crystal was excited within the absorption bands of  
naphthalene skeleton (i.e.  $\lambda_B = 313 \text{ m}\mu$ ), and the activator at  
 $\lambda_B = 365 \text{ m}\mu$ . In the case of AK molecule (which is similar to  
naphthalene) a simple replacement in the lattice of the latter was  
thought to be the most likely mechanism. DPB and DPH molecules,  
although quite different from the naphthalene molecule, were  
considered to be able to replace in the lattice two molecules of

Card 1/4

32048

Study of the kinetics of the ...

S/051/61/011/005/008/018  
E202/E192

naphthalene each. The molecular concentration ratio of AK/NAPH was 0.0002, and  $DPB/NAPH = DPH/NAPH = 0.0003$ , so that the X-ray measurements did not disclose any changes in the lattice parameters. However, the changes in the luminescence properties were indicative of a true solid solution. The specific times of light persistence and the times of light persistence for low and high concentrations of activators are given in Table 1. The actual process of the energy migration in a crystal was explained as follows: during the absorption of light in the lattice of a molecular crystal, an exciton is formed which moves within the regular field of the lattice with the characteristics of a diffusion process. The exciton is localised in the excited field near the activator, part of its energy is scattered and finally it is captured by the activator. Hence the total measured time of the persistence of light consists of three stages: 1 - time of exciton diffusion; 2 - time of exciton's life in a localised state; 3 - specific time of light persistence of the activator. Each of these times was evaluated. There are 4 figures, 3 tables and 20 references: 8 Soviet-bloc, 1 translation into Russian from Card 2/4

32048

S/051/61/011/005/008/018  
E202/E192

Study of the kinetics of the ...

non-Soviet-bloc publication, and 11 non-Soviet. The four most recent English language references read as follows:

Ref.11: I. Birks, Phys.Rev., v.94, 1567, 1954.

Ref.14: S.C. Ganguly, N.K. Choudhury. Rev. Mod. Phys., v.31, 920, 1960.

Ref.15: O. Simpson. Proc.Roy.Soc., A238, 402, 1957.

Ref.19: D.C. Northrop. O. Simpson, Proc.Roy.Soc., A234, 136, 1956.

SUBMITTED: December 9, 1960

X

Card 3/4

Study of the kinetics of the ...

32048  
S/051/61/011/005/008/018  
E202/E192

Table 1

Activator	Spec. time of light persistence of the activator (sec)	Time of persistence with excitation through the lattice (sec)	
		Low concentr. of activator	higher concentr. of activator
AK	$6.7 \times 10^{-9}$	$19 \times 10^{-9}$	$12.6 \times 10^{-9}$
DPB	$1.5 \times 10^{-9}$	$16.2 \times 10^{-9}$	$13 \times 10^{-9}$
DPH	$4.6 \times 10^{-9}$	$19.5 \times 10^{-9}$	$6.9 \times 10^{-9}$

Card 4/4

KOVALEV, V.P.; STAVINSKIY, V.S.

Correlation between the mean number and mean energy of prompt  
fission neutrons and the properties of the fissionable nucleus.

Zhur.eksp.i teor.fiz. 41 no.4:1304-1306 0 '61. (MIRA 14:10)  
(Nuclear fission)

KOVALEV, V.P.

Certain methods for shaping a plane electromagnetic wave under laboratory conditions. Radiotekh. i elektron. 7 no.1:71-77 Ja '62.  
(MIRA 15:1)

(Electromagnetic waves)

38865

S/056/62/042/006/030/047  
B104/B108

24.6600

AUTHORS: Stavinskiy, V. S., ~~Kovalev, V. P.~~

TITLE: Calculation of the fission threshold and the excitation energy of fragments in the droplet nuclear model taking account of the Wigner symmetry energy

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 6, 1962, 1614 - 1617

TEXT: According to C. F. Weizsäcker (Zs. Phys., 96, 431, 1935) and E. P. Wigner (Phys. Rev., 51, 947, 1937), the total coupling energy of a nucleus is given by

$$E(N, Z, \sigma) = -\alpha A + \beta B_s(\sigma) A^{1/2} + \gamma \frac{(N-Z)^2}{A} + \delta B_c(\sigma) \frac{Z^2}{A^{1/2}} + \epsilon B_s(\sigma) \frac{(N-Z)^2}{A^{1/2}}.$$

A is the number of nucleons in the nucleus, Z the nuclear charge. The constants  $\alpha, \beta, \gamma, \delta, \epsilon$  are determined from experiments, and are equal for all nuclei. The energy change with deformation of the nucleus is described

Card 1/2



Calculation of the fission ...

S/056/62/042/006/030/047  
B104/B108

by the coefficients  $B_S(\sigma)$ ,  $B_C(\sigma)$ .

$$E_f = \beta A^{1/2} [B_S(\sigma_{kp}) - 1] + \delta \frac{Z^2}{A^{1/2}} [B_C(\sigma_{kp}) - 1] - \gamma \frac{(N-Z)^2}{A^{1/2}} [B_S(\sigma_{kp}) - 1], \quad (2)$$

is obtained for the threshold energy allowing for the surface term in the symmetry energy.  $\sigma_{kp}$  is the nuclear deformation corresponding to a saddle point. Since values of  $B_S$  and  $B_C$  are known in publications only for symmetric decay the effect of the last term in (2) is studied here for the case of symmetric fission only. It is shown that the experimental correlation of the characteristics of spontaneous fission with neutron excess in the fissionable nucleus is obtained if the dependence of the Wigner symmetry energy on the nuclear deformation is considered in the mass formula. Experimental results and theory are in better agreement when making this consideration. There are 2 figures.

SUBMITTED: January 11, 1962

Card 2/2

L 2898-66 EWT(m)/EPF(c)/ETC/EPF(n)-2/EWG(m)/T WW

ACCESSION NR: AT5022118

UR/3158/65/000/007/0001/0009

AUTHORS: Bondarenko, I. I. (deceased); Kovalev, V. P.; Zolotukhin, V. G.

TITLE: The possibility of utilizing a nuclear reactor in space to measure directly the neutron-neutron scattering cross section

SOURCE: Obninsk. Fiziko-energeticheskiy institut. /Doklady/, no. 7, 1965. 0  
vozmozhnosti ispol'zovaniya yadernogo reaktora v kosmicheskom prostranstve dlya  
pryamogo izmereniya secheniya (n-n)-rasseyaniya, 1-9

TOPIC TAGS: nuclear reactor, neutron, scattering cross section, elementary particle, space environment

ABSTRACT: A physical experiment is proposed for continuously and directly measuring the n-n interaction cross section in the S-state. Because of the very high vacuum of outer space, the experiment is proposed at an altitude of 400-500 km with a pulse reactor as the neutron source and an He<sup>3</sup>-filled ionization chamber as a detector. Starting with an expression for the number of pulses in the given chamber per single burst

$$J = K(\epsilon) \cdot Q^2 \cdot \sigma_{nn} \cdot S \cdot E \text{ pulses}$$

and the following definition for the pulse width

Card 1/2

L 2898-66

ACCESSION NR: AT5022118

$$\tau = 3.5 \frac{e}{\delta K_0}$$

a criterion is derived for selecting the most suitable reactor

$$\delta K_0 = \frac{|\alpha|}{2} (T_{max} - T_0),$$

where  $|\alpha|$  is the thermal coefficient of reactance  $K_0$ . The best reactor is shown to be a zirconium-hydride one with a beryllium reflector. The number of neutrons emitted from the reactor is given by  $8.6 \times 10^{17}$  n, and the value for the number of pulses  $I$  is 114. Four possible sources of background noise are investigated, and it is shown that the maximum error in the neutron-neutron scattering cross section can be reduced to  $\pm 10\%$ . "The authors express their gratitude to V. A. Kuznetsov, G. Ya. Rumyantsev, Yu. Ya. Stavisskiy, and V. S. Stavinskiy for their interest in the work and for their valuable advice." Orig. art. has: 5 formulas and 1 figure.

ASSOCIATION: Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii SSSR (State Committee on the Utilization of Atomic Energy SSSR); Fiziko-energeticheskiy institut, Obninsk (Physics and Power Institute, Obninsk)

SUBMITTED: 06Apr65

ENCL: 00

SUB CODE: NP

NO REF SOV: 003

OTHER: 005

Card 2/2 Kc

DUMA, A.K., inzh.; MASHKOV, A.S., inzh.; KOVALEV, V.P., inzh.

Strengthened suspended scaffolding with mechanized hoisting.  
Prom. stroi. 40 no. 12:37-39 '62. (MIRA 15:12)  
(Scaffolding)

KOVALEV, V.P.

Genesis of magnetite mineralization in granites of the Tigirek massif  
in the Altai. Geol.i geofiz. no.2:66-76 '62. (MIRA 15:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,  
Novosibirsk.  
(Altai Mountains--Magnetite)

KOVALEV, V.P.

Temperature effect on the kinetics of the sensitized  
luminescence of certain impurities in naphthalene crystals.  
Opt. i spektr. 12 no.1:143-144 Ja '62. (MIRA 15:2)  
(Luminescence)  
(Naphthalene crystals)

KOVALEV, V. P.

Dissertation defended for the degree of Candidate of Geologo-Mineralogical Sciences at the Joint Academic Council on Geologo-Mineralogical, Geophysical, and Geographical Sciences; Siberian Branch

"Genetic Relationships of Metallic Mineralization with the Tigirekskiy Granite Pluton (In the Altray) and the Place of Boron Concentrations in This Mineralization."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

KOVALEV, V.S.; BRITAN, A.B.

Paralysis and paresis in tuberculous spondylitis. Probl. tub. 42  
no.11:72-73 '64. (MIRA 18:8)

1. Sanatoriy "Yuzhnyy" (glavnyy vrach V.S.Kovalev), Chernomorka -  
Odessa.



ZABEDOVSKIY, M.P.; ZAUSHNIKOV, N.V.; KOVALEV, V.S.

Airtightening welded joints in thin-walled cast iron parts  
by metal spraying. Svar. proizvod. no. 6:20-21. Ia. '63.

(MIRA 16:12)

1. Tsentral'nyye eksperimental'nyye svarochnyye masterskiye  
Vsesoyuznogo nauchno-issledovatel'skogo instituta avtogennoy  
obrabotki metallov.

KOVALEV, V.S., gornyy inzh.

Using rocket shells to eliminate ore hang-ups (from data in foreign literature). Gor. zhur. no.7:75 J1 '62. (MIRA 15:7)  
(Mining engineering--Equipment and supplies)

GUBANOV, A.I.; SURGUCHEV, M.L.; KOVALEV, V.S.

Flow diagrams of the development of oil pools in the layers  
A<sub>3</sub> and A<sub>4</sub> of the Kuleshovskoye field. Trudy Giprovtoknefti  
no.5:152-166 '62. (MIRA 16:8)

(Kuybyshev Province—Oil Reservoir engineering)

KOVALEV, V.S.

Determining the conformance factor of a nonuniform layer.  
Nefteprom, delo no.12:17-21 '63. (MIRA 17:4)

1. Gosudarstvennyy institut po proyektirovaniyu i issledovatel'skim  
rabotam neftedobyvayushchey promyshlennosti vostochnykh rayonov  
strany.

ASHIROV, K.B.; GUBANOV, A.I.; KHANIN, I.L.; SURGUCHEV, M.I.; KOVALEV,  
V.S.; GROMOVICH, V.A.

Conditions governing the development of the Kuleshovka oil  
field. Geol. nef'ti i gaza 7 no.10:26-34 O '63.

(MIRA 17:10)

1. Gosudarstvennyy institut po proyektirovaniyu i issledovatel'-  
skim rabotam nef'tedobyvayushchey promyshlennosti vostochnykh  
rayonov strany i Kuybyshevneft'.

KOVALEV, V.S.; SAZONOV, B.F.

Taking into consideration the nonuniformity of a bed with respect to permeability, porosity, oil saturation, and drive completion in calculating the drowning and oil production of producing beds. Nauch.-tekh. sbor. po dob. nefti no.25:82-86 '64. (MIRA 17:12)

1. Gosudarstvennyy vsesoyuznyy issledovatel'skiy i proyektnyy institut nefyanoy promyshlennosti.

KOVALEV, V.S.

Introducing a semiautomatic six-spindle transfer machine.  
Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.  
inform. 18 no.11:33-34 N '65.

(MIRA 18:12)

KOVALEV, V.S.

Structure of the erosion surface of Paleogene deposits in the southeastern part of the Aral Sea region. Dokl. AN Uz. SSR 21 no.8:35-37 '64. (MIRA 19:1)

1. Institut gidrogeologii i inzhenernoy geologii Gosudarstvennogo geologicheskogo komiteta SSSR. Submitted Jan. 10, 1964.



KOVALEV, V.V., kandidat tekhnicheskikh nauk, dotsent; MISHKOVICH, I.M.,  
assistant.

Changes in the temperature of the metal of locomotive boilers  
in the process of cooling. Trudy RIIZHT no.17:46-53 '53.  
(Locomotive boilers) (MLRA 9:6)

*Revised List of Works*

KOVALEV, V.V.

KOVALEV, V.V.

Disorders of cortical neurodynamics in Korsakoff's syndrome;  
preliminary report. Zhur.nevr. i psikh.55 no.10:765-769 '55.  
(MLRA 8:11)

1. Kafedry psikhiatrii II Moskovskogo meditsinskogo instituta  
imeni I.V.Stalina (zav.-prof. O.V.Kervikov)  
(PSYCHOSES, ALCOHOLIC, pathology  
cerebral cortex, neurodynamic aspects)  
(CEREBRAL CORTEX, invarious diseases,  
Korsakoff's synd.,neurodynamic changes)

KOVALEV, V. V.

KOVALEV, V. V. : "The clinical aspects and neurodynamics of Korsakov's syndrome." Second Moscow State Medical Inst imeni I. V. Stalin. Moscow, 1956. (Dissertation for the Degree of Candidate in Medical Science.)

Knizhnaya letopis', No. 31, 1956. Moscow.

KOVALEV, V.V.

~~CONFIDENTIAL~~  
Certain clinical aspects of Korsakoff's syndrome of varying etiology  
[with summary in French]. Zhur.nevr. i psikh. 57 no.3:376-381 '57.  
(MLRA 10:6)

1. Kafedra psikhiatrii (zav. - prof. O.V.Kerbikov) II Moskovskogo  
meditsinskogo instituta imeni I.V.Stalina.

(PSYCHOSES,

Korsakoff's synd. of various etiol., clin. aspects (Rus))

KOVALEV, V.V.

EXCERPTA MEDICA Sec 3 Vol 14/4 Endocrinology Apr 60

707. MECHANISM OF ACTION OF INSULIN (Russian text) - Kovaleb V.V.  
- ZDRAVOOKHR. BELOR. 1958, 4/11 (13-16) Tables 1

Insulin coma can be produced more smoothly and with less insulin even in insulin-resistant cases when the insulin is injected s.c. in symmetrical portions of the body (arms, back, chest, abdomen, anterior surface of the hip). The effect of insulin depends less on the amount used than on the method of administration.  
Leicester - San Francisco, Calif. (III, 6\*)

KOVALEV, V.V.

Neuropsychic disorders in patients with congenital cardiac defects.  
Zhur.nevr. i psikh. 59 no.8:986-993 '59. (MIRA 12:12)

1. Kafedra psikhiiatrii (zav. - prof. O.V. Kerbikov) II Moskovskogo  
meditsinskogo instituta imeni N.I. Pirogova.  
(HEART DEFECTS, CONGENITAL compl.)  
(MENTAL DISORDERS etiol.)

KOVALEV, V.V.

Effect of the surgical treatment of congenital heart defects on  
the neuropsychiatric status of the patient. Sov.med. 24 no.12:  
68-74 D '60. (MIRA 14:3)

1. Iz kafedry psikhiiatrii (zav. - prof. O.V.Kerbikov) II Moskovskogo  
meditsinskogo instituta imeni N.I.Pirogova.  
(HEART—ABNORMITIES AND DEFORMITIES)

KOVALEV, V.V.; KAZANSKAYA, A.Ye.

Effective method for lowering the resistance to insulin in psychic patients. Zhur.nevr.i psikh. 60 no.9:1198-1203 '60. (MIRA 14:1)

1. Kafedra psikhiatrii (zav. - prof. O.V.Kerbikov) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova i Moskovskaya gorodskaya psikhonevrologicheskaya bol'nitsa No.8 imeni Solov'yeva (glavnyy vrach V.D. Denisov).

(INSULIN SHOCK THERAPY)

(PSYCHOSES)



KOVALEV, V.V.

Results with isoprine diisopropylputrescine) in neuropsychiatric diseases. Farm.i toks. 24 no.1:57-61 Ja-F '61. (MIRA 14:5)

1. Kafedra psikiatrii (zav. - chlen-korrespondent AMN SSSR prof. O.V.Kerbikov) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

(TRANQUILIZING AGENTS)  
(BUTANEDIAMINE)

(MENTAL ILLNESS)

KOVALEV, V.V.

Mental disorders following surgical treatment of acquired defects of the heart. Zhur.navr.i psikh. 61 no.3:420-425 '61.

(MIRA 14:7)

1. Kafedra psikhiiatrii (zav. - prof. O.V.Kerbikov) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

(HEART—SURGERY)

(MENTAL ILLNESS)

KOVALEV, V.V.

Dynamics of states of intellectual insufficiency in children with congenital heart defects in relation to their surgical treatment. Zhur. nevr. i psikh. 61 no.7:1036-1041 '61. (MIRA 15:6)

1. Kafedra psikhiatrii (zav. - prof. O.V. Kerbikov) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

(MENTAL DEFICIENCY)

(HEART--DISEASES--PSYCHOSOMATIC ASPECTS)

KOVALEV, V. V., (Moskva, B. Ordynka, d. 52, kv. 2)

Psychiatric aspect of surgery in acquired defects of the heart.  
Grud. khir. 4 no.1:18-24 Ja-F '62. (MIRA 15:2)

1. Iz kafedry psikhiiatrii (zav. - chlen korrespondent AMN SSSR,  
prof. O. V. Kerbikov) II Moskovskogo gosudarstvennogo meditsinskogo  
instituta imeni N. I. Pirogova.

(HEART--SURGERY) (HEART--DISEASES--PSYCHOSOMATIC ASPECTS)

KOVALEV, V.V.; KAZANSKAYA, A.Ye.

Treatment with shock doses of insulin in combination with hexonium  
in schizophrenia. Zhur. nevr. i psikh. 62 no.4:601-604 '62.  
(MIRA 15:5)

1. Kafedra psikhatrii (zav. - prof. O.V.Kerbikov) II Moskovskogo  
meditsinskogo instituta imeni N.I.Pirogova i Moskovskaya gorodskaya  
psikhonevrologicheskaya bol'nitsa No.8 imeni Solov'yeva (glavnyy  
vrach V.D.Denisov).

(SCHIZOPHRENIA) (INSULIN SHOCK THERAPY)  
(HEXONIUM)

KOVALEV, V.V.

Dynamics of the mental condition of patients following clinical  
death of short duration. Vest.AMN SSSR 17 no.7:17-22 '62.

(MIRA 15:10)

1. II Moskovskiy meditsinskiy institut imeni N.I.Pirogova.  
(DEATH, APPARENT) (ELECTROENOEPHALOGRAPHY)

KOVALEV, V.V.

Emotional disorders in patients with acquired heart defects in connection with their surgical treatment. Zhur.nerv.i psikh. 62 no.6:910-915 '62. (MIRA 15:11)

1. Kafedra psikhiiatrii II Moskovskogo meditsinskogo instituta imeni Pirogova (zav. - prof. O.V.Kerbikov).  
(HEART---DISEASES) (EMOTIONS)

ACCESSION NR: AP4041350

S/0248/64/000/006/0063/0069

AUTHOR: Badalyan, L. O.; Kovalev, V. V.

TITLE: Neuropsychic alterations during hypoxic conditions associated with surgical treatment of heart failure

SOURCE: AMN SSSR. Vestnik, no. 6, 1964, 63-69

TOPIC TAGS: heart failure, hypoxia, heart surgery, psychosis, brain damage

ABSTRACT: Features specific to neuropsychic disturbances that appeared in 138 patients (from 4 to 50 years of age) operated on for acquired or congenital heart failures are described. These disorders developed in connection with hypoxia caused by acute circulatory and respiratory surgery during an operation on the heart or soon thereafter. Patients with favorable surgical outcomes were examined prior to discharge from the hospital, then for periods varying from 6 months to 2 years following discharge. Neurological, psychopathological, and clinico-psychological investigations were conducted. These

Card 1/3



ACCESSION NR: AP4041350

investigations made it possible to isolate three degrees of brain hypoxia appearing as a result of acute circulatory and respiratory insufficiency following heart surgery. The first degree is characterized by moderately marked and fully reversible neuropsychic disorders in the form of an asteno-adynamic condition attended by stupor, episodes of hypnagogic delirium, and also by temporary neurologic disturbances. In the second degree, the neurological and psychic disturbances are more pronounced and persistent and are not always amenable to complete regression. As a rule, clear-cut pathological reflexes become noticeable. Acute psychoses with various syndromes of troubled consciousness occur frequently. The third degree of brain hypoxia is manifested either by a comatose or a profound soporific state with pronounced neurologic disorders. Its prognosis is unfavorable and this condition generally precedes the onset of clinical death. This data may be used both for prevention and treatment of the above disorders and also for evaluating their prognosis.

ASSOCIATION: II Moskovskiy meditsinskiy institut im. N. I. Pirogova  
(Second Moscow Medical Institute)

Card 2/3

ACCESSION NR: AP4041350

SUBMITTED: 11Dec63

ENCL: 00

SUB CODE: LS

NO REF SOV: 007

OTHER: .007

Card 3/3

KOVALFV, V.V. (Moskva)

State of psychiatric hospitals in France (based on materials  
from the periodical L'Information psychiatrique, 1962, no.2).  
Zhur. nevr. i psikh. 64 no.6:939-944 '64. (MIRA 17:12)

KOVALEV, V.V.

Neurosislike disorders in children and adolescents with congenital  
vitium cordis. Zhur. nevr. i psikh. 64 no.7:1074-1079 '64.  
(MIRA 17:12)

1. Kafedra psikhatrii (zaveduyushchiy - prof. O.V. Kerbikov)  
II Moskovskogo meditsinskogo instituta im. N.I. Pirogova.

KOVALEV, V.V.

Neuropsychic disorders in atrioventricular block and Morgagni-  
Adams-Stokes syndrome. Zhur. nevr. i. psikh. 65 no.3:394-  
401 '65. (MIRA 18:4)

1. Kafedra psikhiiatrii (zaveduyushchiy ~ prof. O.V. Kerbikov)  
II Moskovskogo meditsinskogo instituta im. Pirogova.

KOVALEV, V.V. (Moskva)

Neurosis-like disorders in connection with surgical treatment of patients  
with acquired heart defects. Zhur. nevr. i psikh. 65 no. 5: 742-746 '65.  
(MIRA 18:5)

1. 21548-66 EWT(1)/FSS-2/EEC(k)-2/EWA(d) SCTB TT/DD/GW

ACC NR: AP6007746

SOURCE CODE: UR/0293/66/004/001/0151/0155

AUTHOR: Buyanov, P. V.; Kovalev, V. V.; Terent'yev, V. G. Fedorov, Ye. A.  
Khlebnikov, G. F. 36  
B

ORG: none

TITLE: Results of preflight and postflight medical examinations of Voskhod-1 crew members 12  
2

SOURCE: Kosmicheskiye issledovaniya, n. 4, no. 1, 1966, 151-155

TOPIC TAGS: cosmonaut, physiological change, cardiovascular system, enzyme, encephalogram, muscular tonus, leukocyte/~~Voskhod-1~~

ABSTRACT: Results of preflight and postflight examinations of the Voskhod-1 cosmonauts were compared and physiological shifts were noted. The physiological profile of each cosmonaut was determined from background data compiled for two weeks before the flight. Examination of the cosmonauts after preflight training showed increased resistance to flight factors in all of them, especially Komarov. By comparison, Feoktistov and Yegorov showed less adaptability, especially in the cardiovascular system. In the week preceding the flight, Komarov and Feoktistov were somewhat reserved in behavior. Prelaunch tests conducted at the cosmodrome emphasized the nervous and emotional state of the cosmonauts. The four-day postflight medical examination began 15 minutes after landing. To ensure uniformity, all postflight tests

Card 1/2

UDC: 629.198.61 2

L 21548-66

ACC NR: AP6007746

(including laboratory tests) were conducted by the same people who had performed the preflight checks. Clinical investigation begun six hours after landing showed a moderate decrease in working capacity, revealed in an increase in the number of errors and a lengthening of latent periods during performance of psychological tests. Encephalograms showed intensification of retardation processes in the cerebral cortex. Slight variations in digestive enzyme activity were also observed in the cosmonauts after the flight: the activity of amylase, enterokinase, alkaline phosphatase, and trypsin increased. The following shifts were noted in cosmonauts immediately after the flight: slight instability in the Romberg position, tremor of fingers, increased tendency to perspire, moderate decrease in muscle tone, quickening of the pulse, and decrease in blood pressure due to increased diastolic pressure. Body weight decreased 2.6% for Koamrov, 4% for Feoktistov, and 3.9% for Yegorov. In addition, moderate shifts in metabolic processes were noted: increased energy consumption while resting, increase in blood urea and cholesterol, and increased elimination of nitrogenous components from urine. Some decrease in the phagocytic activity of leukocytes was also observed. The changes noted were attributed to fatigue and stress. They were of a strictly functional nature and usually disappeared within several days after the flight. Individual characteristics and differences in pre-flight preparation were reflected in the varying character of these physiological shifts. [JS]

SUB CODE: 06/ SUBM DATE: 28Jul65/ ATD PRESS: 4219

Card 2/2 BLG



KOVALEV, V.V., inzh.

Heat transfer and humidity characteristics of exterior brick guard  
walls. Izv. vys. ucheb. zav.; energ. 6 no.10:83-91 0 '63.  
(MIRA 16:12)

1. Belorusskiy politekhnicheskiy institut. Predstavleno kafedroy  
teplogazosnabzheniya i ventilyatsii.

ACCESSION NR: AR4028408

S/0275/63/000/011/V004/V004

SOURCE: Referativnyy zhurnal. Elektronika i yeye primeneniye.  
Svodnyy tom, Abs. 11V21

AUTHORS: Kovalev, V. V.; Zakharov, V. L.

TITLE: Electronic instrument for the measurement of air humidity

CITED SOURCE: Sb. Issled. v obl. teploobmena i aerodinamiki potokov. Minsk, M-vo vyssh., sredn. spets. i prof. obrazovaniya BSSR, 1963, 18-26

TOPIC TAGS: humidity measurement, air humidity measurement, electronic humidity measurement, hygroscope, air moisture meter, humidity monitor

TRANSLATION: The pickup of the instrument is a parallelepiped made of foamed glass purified of extraneous admixtures, dried, and im-

Cord 1/2

KOVALEV, V.V., inzh; NEUSIKHIN, I.Ya., kand. tekhn. nauk; LARIONOV, B.A.,  
inzh.

Effect of the nature of moisture distribution on the magnitude  
of general thermal heat transmission resistance. Izv. vys.  
ucheb. zav.; energ. 7 no.6:113-115 Je '64 (MIRA 17:8)

1. Belorusskiy politekhnicheskiy institut. Predstavlena kafedroy  
teplogazosnabzheniya i ventilyatsii.

MARKOVICH, B.N., kand. tekhn. nauk; IZYUMTSEV, A.N., inzh.; KOVALEV, V.V.,  
inzh.

Manufacturing panels on punching presses. [Nauch. trudy]  
ENIKMASHa 11:14-49 '65. (MIRA 18:6)

KOVALEV V. V.

Subject : USSR/Aeronautics - Aircraft (Tu-104) AID P - 4707  
Card 1/1 Pub. 58 - 2/14  
Author : Kovalev, V., Test-pilot 1/c  
Title : I Tested the Tu-104  
Periodical : Kryl. rod., 6, 2-4, Je 1956  
Abstract : A narrative of the author's experiences during the  
World War II and as a test pilot of the jet Tu-104.  
Photo of the author. The article contains some data  
purported to stress the suitability of the Tu-104 as  
air liner.  
Institution : None  
Submitted : No date

KOVALEV, V.V.

86-12-2/29

AUTHOR: Kovalev, V.V., Capt.

TITLE: The Task is carried out by a Pilot First Class (Zadaniye vpolnyayet letchik pervogo klassa)

PERIODICAL: Vestnik Vozdushnogo Flota, 1957, Nr 12, pp. 10-15 (USSR)

ABSTRACT: The article deals with the problem of training bomber crews for air battles with enemy fighters. The author states that the bombers must avoid air battles with enemy fighters in order to carry out more successfully their main task, that is bombing attacks against predetermined targets. Nevertheless, the training of personnel for air battles is considered an important element in the combat training of bomber crews. The author then gives two examples. First, the pilots had to decide what to do when a bomber flying at an altitude of 400 m above the cloud deck, is approached by two enemy fighters detected at a distance of 2 - 3 km from the bomber. The remaining distance to the predetermined target was 15 min. flying time. Several solutions are

Card 1/2

86-12-2/29

The Task is carried out by a Pilot First Class

suggested, Second, the pilots were alerted and called to the command post. There they were briefed on the situation as follows: In the area of N... railroad station some launching sites for guided ground-to-air missiles were located. The sites were heavily protected with AAA. After he had received scanty information, the subunit commander ordered a bomber crew to photograph the launching site area. This was carried out under adverse weather conditions from a low altitude by using the oblique aerial photography method while the aircraft is banking. When attacked by an enemy fighter, the pilot skillfully maneuvered the bomber away from the fighter. The photographs taken helped the subunit to bomb accurately the launching sites. The article contains two photos. One photo shows Lt Col S.A. Nosov, who it is said, is skillful in training and educating his subordinates. The second photo shows Captain V. F. Kuchin, who is considered to be a master of air battles and sniping.

AVAILABLE: Library of Congress

Card 2/2

KOVALEV, V.V., kapitan

A flyer of the first class carries out an assignment. Vest.  
Vozd. Fl. 40 no.12:10-16 D '57. (MIRA 14:12)  
(Air warfare)



KOVALEV, V.V., mayor

Our commander said: "Bomb from the clouds like Major Iakubov".  
Vest.Vesd.Fl. no.1:46-50 Ja '60. (MIRA 13:8)  
(Bombing, Aerial)

SOKOLOV, V.D., podpolkovnik; KOVALEV, V.V., mayor

The squadron flies at night. Vest.Vozd.Fl. no.7:  
38-43 J1 '60. (MIRA 13:7)  
(Airplanes--Piloting)

KOVALEV, V.V.mayor

Each error must be eliminated in time. Vest.Vozd.Fl. no.12:44-45  
D '60. (MIRA 14:5)

(Airplanes—Landing)

SILANT'YEV, A.P., polkovnik; ZELENOV, P.T., polkovnik; LEBEDEV, P.N.,  
mayor; KOVALEV, V.V., mayor

Flights are the main concern of the staff. Vest.Vozd.Fl.  
no.2:26-40 F '61. (MIRA 14:7)

(Russia--Air force)

VOSKOBOYNIK, V., podpolkovnik, voyennyy letchik pervogo klassa; KOVALEV, V.,  
mayor

First steps of an instructor. Av.i kosm. 44 no.3:44-49 '62.  
(Flight training) (MIRA 15:3)

KOVALEV, V., zasluzhennyy letchik-ispytatel' SSSR, Geroy Sovetskogo  
Soyuza

Piloting in recovering at high incidence. Av. i kosm. 47 no.7:  
67-74 J1 '64. (MIRA 17:7)

VOLYNKIN, Yu.M.; ARUTYUNOV, G.A.; ANTIPOV, V.V.; ALTUKHOV, G.V.;  
 BAYEVSKIY, R.M.; BELAY, V.Ye.; BUYANOV, P.V.; BRYANOV, I.I.;  
 VASIL'YEV, P.V.; VOLOVICH, V.G.; GAGARIN, Yu.A.; GENIN, A.M.;  
 GORBOV, F.D.; GORSHKOV, A.I.; GUROVSKIY, N.N.; YESHANOV, N.Kh.;  
 YEGOROV, A.D.; KARPOV, Ye.A.; KOVALEV, V.V.; KOLOSOV, I.A.;  
 KORESHKOV, A.A.; KAS'YAN, I.I.; KOTOVSKAYA, A.R.; KALIBERDIN,  
 G.V.; KOPANEV, V.I.; KUZ'MINOV, A.P.; KAKURIN, L.I.; KUDROVA,  
 R.V.; LEBEDEV, V.I.; LEBEDEV, A.A.; LOBZIN, P.P.; MAKSIMOV,  
 D.G.; MYASNIKOV, V.I.; MALYSHKIN, Ye.G.; NEUMYVAKIN, I.P.;  
 ONISHCHENKO, V.F.; POPOV, I.G.; PORUCHIKOV, Ye.P.; SIL'VESTROV,  
 M.M.; SERYAPIN, A.D.; SAKSONOV, P.P.; TEREENT'YEV, V.G.; USHAKOV,  
 A.S.; UDALOV, Yu.F.; FOMIN, V.S.; FOMIN, A.G.; KHLEBNIKOV, G.F.;  
 YUGANOV, Ye.M.; YAZDOVSKIY, V.I.; KRICHAGIN, V.I.; AKULINICHEV,  
 I.T.; SAVINICH, F.K.; STMPURA, S.F.; VOSKRESENSKIY, O.G.;  
 GAZENKO, O.G., SISAKEYAN, N.M., akademik, red.

[Second group space flight and some results of the Soviet  
 astronauts' flights on "Vostok" ships; scientific results of  
 medical and biological research conducted during the second  
 group space flight] Vtoroi gruppovoi kosmicheskii polet i neko-  
 torye itogi poletov sovetskikh kosmonavtov na korabliakh  
 "Vostok"; nauchnye rezul'taty medikobiologicheskikh issledovaniy,  
 provedennykh vo vremia vtorogo gruppovogo kosmicheskogo poleta.  
 Moskva, Nauka, 1965. 277 p.  
 (MIRA 18:6)

KOVALEV, Vladimir Yakovlevich; PRIKHOD'KO, S., red.; NAGIBIN, P.,  
tekhn. red.

[Manual on the problems of labor and wages in automotive  
transportation] Spravochnik po voprosam truda i zarabotnoi  
platy na avtotransporte. Alma-Ata, Kazakhskoe gos. izd-vo,  
1962. 328 p. (MIRA 16:5)  
(Transportation, Automotive--Handbooks, manuals, etc.)



KOVALEV, V. Ye., Cand Tech Sci -- (diss) "Herbicides derived from phenols gotten from resins in the pyrolysis of wood." Leningrad, 1960. 14 pp with graphs; (Ministry of Higher and Secondary Specialist Education USSR, Leningrad Order of Lenin Forestry Engineering Academy im S. M. Kirov); 200 copies; free; (KL, 25-60, 132)

TISHCHENKO, D.V.; KOVALEV, V.Ye.

Preparation of new herbicides. *Gidroliz. i lesokhim. prom.* 14  
no.6:30-31 '61. (MIRA 14:9)

1. Lesotekhnicheskaya akademiya imeni S.M. Kirova.  
(Herbicides)

MAKAROVA, V.A.; KOVALEV, V.Ye.

Field experiments with LTA herbicides. Gidroliz. i lesokhim.  
prom. 14 no.6:31-32 '61. (MIRA 14:9)

1. Zernogradskaya gosudarstvennaya selektsionnaya stantsiya (for  
Makarova). 2. Lesotekhnicheskaya akademiya imeni S.M. Kirova  
(for Kovalev).

(Herbicides)

AVILOV-KARNAUKHOV, B.M.; BOGUSH, A.G.; GIKIS, A.F.; DROZDOV, A.D.;  
MALOV, D.I.; SINEL'NIKOV, Ye.M.; BRUSENTOV, L.V.; DENISOV, A.A.;  
PAL'SHAU, M.V.; POLYAKOV, F.I.; CHERNYAVSKIY, F.I.; BUROK, V.S.;  
GORDEYEV, V.I.; KAZHDAN, A.E.; KOVALEV, V.Ye.; KURENNYY, E.G.;  
POTAPENKO, V.Ya.

Professor Georgii Mikhailovich Kaialov, 1905- ; on his 60th  
birthday and the 37th anniversary of his theoretical and educa-  
tional work. Izv. vys. ucheb. zav.; elektromekh. 8 no.10:1181-  
1182 '65. (MIRA 18:11)

KOVALEV, V.Ye.; SEMENOVA, A.K.

Simplified method for determining the active substance in the  
technical preparations of the 2,4-D and 2,4,5-T esters. Zashch.  
rast. ot vred. i bol. 6 no.5:32-33 My '61. (MIRA 15:6)  
(Herbicides)

L 23216-66 EWT(d)/EWP(k)/EWP(1)  
ACC NR: AP6013582

SOURCE CODE: UR/0144/65/000/010/1181/1182

AUTHOR: Avilov-Karnaukhov, B. N.; Bogush, A. G.; Gikis, A. F.; Drozdov, A. D.;  
Malov, D. I.; Sinel'nikov, Ye. M.; Brusentsov, L. V.; Denisov, A. A.; Pal'shau, M. V.;  
Polyakov, B. A.; Chernyavskiy, F. I.; Burok, V. S.; Gordeyev, V. I.; Kazhdan, A. E.;  
Kovalev, V. Ye.; Kurennyy, E. G.; Potapenko, V. Ya.

ORG: none

TITLE: Professor G. M. Kayalov on the occasion of his 60th birthday and 37 years of  
pedagogical activities

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Elektromekhanika, no. 10, 1965,  
1181-1182

TOPIC TAGS: electric engineering personnel, academic personnel

ABSTRACT: Doctor of Engineering Sciences, Professor of RIIZhT  
/Rostovskiy institut inzhenerov zheleznodorozhnogo transporta;  
Rostov Institute of Railroad Engineers/, Georgiy Mikhaylovich  
KAYALOV was born on 26 September 60 years ago. He began his  
working career as a standby electrical construction worker at the  
Novorossiysk cement factory. In 1929 he graduated from the  
Novocherkassk Polytechnical Institute, and between 1928 and 1947  
worked in the designing section of the "Elektroprom" trust. Sub-

Card 1/2

L 23216-66

ACC NR: AP6013582

sequently, he joined the Rostov department of the GPI /Gosudarstvennyy proyektnyy institut; State Designing Institute/ "Tyazhpromelektro-proyekt" where he advanced from a technician of the designing department to its chief engineer. From 1933 to 1962 he was docent of the department of electrification of industrial enterprises of the NPI /Novocherkasskiy politekhnicheskii institut imeni Sergo Ordzhonikidze; Novocherkassk Politechnic Institute im. Sergo Ordzhonikidze/; he taught as professor until 1965 and presently is a professor of the RIIZhT. He published more than 70 scientific works, including studies of flywheel-containing electric motors, investigations of electrical loads of industrial enterprises, analyses of basic features of real load graphs, (including their probabilistic modeling), proposals for peak load calculation methods (based on the theory of mass servicing) and developments of methods for the calculation of extremal loads of heavy consumers, for the study of random graphs of reactive loads, for the evaluation of electric load fluctuations, and the like. G. M. KAYALOV was also active in the Party, professional, and scientific organizations. He is a holder of the "For Outstanding Work During the Great Patriotic War of 1941-1945 gg." medal and the "Badge of Honor"

decoration. Orig. art. has: 1 figure. [JPRS] 14

SUB CODE: 09, 05 / SUBM DATE: none

Card 2/2 28

KOVALEV, Ya.A.

Making soils water-resistant for waterproofing purposes. Izv. AN Uz. SSR  
no. 11:19-23 '56. (MIRA 14:5)

(Soil stabilization) (Waterproofing)



KOVALEV, Ya.A.

Formation of Solonetz soils due to irrigation with mineralized waters. Mat. po proizv. sil. Uzb. no.15:137-146 '60.  
(MIRA 14:8)

1. Institut pochvovedeniya AN Uzbekskoy SSR.  
(Solonetz soils) (Irrigation)

KOVALEV, Ya. G.

10(2); 28(1); 29(1) PHASE I BOOK EXPLOITATION SOV/1603

Moscow. Vyssheye tekhnicheskoye uchilishche imeni Baumana

Nekotoryye voprosy mekhaniki; sbornik statey (Some Problems in Mechanics; Collection of Articles) Moscow, Oborongiz, 1958. 197 p. (Series: Its [Trudy] vyp. 88) Number of copies printed not given.

Ed. (Title page): V.I. Feodos'yev, Doctor of Technical Sciences, Professor; Ed. (Inside book): A.S. Ginevskiy, Candidate of Technical Sciences; Ed. of Publishing House: L. Ye Serebrennik; Tech. Ed.: L.A. Garnukhina; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This collection is intended for scientific workers, Aspirants and students of advanced courses who are interested in problems of aero- and gas dynamics and in the theory of directional control of aircraft.

COVERAGE: The collection contains reports on various problems in applied mechanics. A large portion of the articles is  
Card 1/8

Some Problems in Mechanics (Cont.)

SOV/1603

devoted to aerodynamic and gas dynamic investigations. In the first article of the collection, the author, Professor K.P. Stanyukovich, considers the laws of motion of a gas-drop-let medium— in particular, the laws of motion of a mechanical mixture of a liquid and a gas with liberation of energy. His conclusions are applicable to the investigation of the motion of a burning fluid jet. The two reports by N.F. Krasnov deal with the aerodynamics of bodies of revolution. In the first, he develops briefly the method of characteristics as applied to the calculation of nonsymmetrical flow about bodies of revolution. In his second report, which treats the base drag of bodies of revolution moving at both subsonic and supersonic speeds, he presents an approximate formula derived for the calculation of the base-drag coefficient in the case of turbulent flow about a body at supersonic speed. V. F. Mikhaylina presents in her report the approximate formulas she obtained for determining the distance between an isolated compression shock and the vertex of a blunt-nosed body of arbitrary form in supersonic flow, and also for determining the velocity and pressure near the critical point. Professor Panichkin presents in his report the partial and general solutions of the differential equation used in the investigation

Card 2/8

Some Problems in Mechanics (Cont.)

SOV/1603

of the flow about bodies of revolution at high subsonic speeds. Kovalev's article is concerned with the investigation of the damping moment associated with the banking of an aerodynamic surface in a supersonic gas flow. He proposes a method for calculating an arbitrary damping moment for wings of rectangular, triangular, and trapezoidal forms. Yesiyev's article is concerned with the damping moment produced by the gas flow from a jet engine nozzle opposing the rotation of the vehicle (if the axis of rotation is not parallel to the nozzle axis). Pobedonostsev and Stanyukovich investigate in their article the problem of optimum ratios of the stages of a multistage rocket. In another report, Stanyukovich generalizes Tsiolkovskiy's ratio in the relativistic sense. The last three articles of the collection are devoted to problems of directional control of aircraft and the theory of automatic control. Shumilov investigates an unsealed control mechanism with cam transmission. Samoylov considers another variety of a control mechanism based on the use of a so-called stream tube. In the last report,

Card 3/8

Some Problems in Mechanics (Cont.)

SOV/1603

Mirslavlev investigates the motion characteristics of one of the automatic control systems used, especially in aircraft and in ship's steering gears.

TABLE OF CONTENTS:

Preface	3
Stanyukovich, K.P., Doctor of Physical and Mathematical Sciences, Professor. Some Problems of the Aerodynamics of a Fluid Jet in Free Flight	5
1. Motion of a jet in a vacuum	5
2. Some remarks on the motion of a jet in a resisting medium	12
3. Basic laws of motion of a gas in the presence of internal energy sources	21
4. Basic laws of motion of a mechanical mixture of a liquid and a gas	35
5. Basic laws of motion of a mechanical mixture of a liquid and a gas with liberation of energy	47

Card 4/8

Some Problems in Mechanics (Cont.)

SOV/1603

Krasnov, N.F., Candidate of Technical Sciences, Docent. On the Method of Characteristics and Its Application to the Calculation of the Pressure Distribution About Pointed Bodies of Revolution Moving at Supersonic Speed at an Angle of Attack

- |   |    |
|---|----|
| 1. Accepted symbols   | 55 |
| 2. Characteristic equation  | 55 |
| 3. Conditions of conformity   | 56 |
| 4. Calculation of the flow about a body of revolution at an angle of attack | 60 |
|   | 67 |

Mikhaylina, V.F., Engineer. A Blunt-nosed Body of Revolution With an Arbitrary Generatrix in Supersonic Flow

- |   |    |
|---|----|
| 1. Determination of the distance between the compression shock and the body in a flow                     | 76 |
| 2. Velocity and pressure distribution along the surface of the body of revolution near the critical point | 76 |
|   | 90 |

Card 5/8

Some Problems in Mechanics (Cont.)	SOV/1603
Krasnov, N.F., Candidate of Technical Sciences, Docent. On the Problem of Base Drag of Bodies of Revolution	95
1. Accepted symbols	95
2. Base drag at subsonic speeds	96
3. Base drag at supersonic speeds	97
Panichkin, I.A., Doctor of Technical Sciences, Professor. Solution of a Differential Equation With Partial Derivatives	103
Kovalev, Ya. G., Candidate of Physical and Mathe- <del>matical</del> Sciences, Docent. Damping Moment in Roll of a Wing Area in a Supersonic Gas Flow	108
1. Statement of the problem	108
2. Distribution of the pressure differences along a triangular wing which performs rolling motion	109
3. Damping moment in roll of a triangular wing	114
4. Damping moment in roll of a rectangular wing	116
5. Damping moment in roll of a triangular and trapezoidal wing in inverse flow	119

Card 6/8

Some Problems in Mechanics (Cont.)

SOV/1603

Yesiyev, M.K., Engineer. On the Problem of Determining the Gas Dynamic Damping Moment	121
1. Description of the test setup	123
2. Sequence of the test procedure	135
Pobedonostsev, Yu. A., Doctor of Technical Sciences, and K. P. Stanyukovich, Doctor of Physical and Mathematical Sciences, Professor. On the Calculation of the Optimum Ratio of the Stages of a Multistage Rocket	144
Stanyukovich, K.P., Doctor of Physical and Mathematical Sciences, Professor. Relativistic Generalization of Tsiol'kovskiy's Formula	156
Shumilov, I.M., Candidate of Technical Sciences. Unsealed Pneumatic Control Mechanism With Cam Distribution	162
1. Basic system of differential equations	162
2. Initial conditions	165

Card 7/8



KOVALEV, Ya.K.

Coefficient of rainwater runoff and its variation in central  
Chernozem provinces. Trudy VGU 42 no.4:37-38 '55. (MIRA 11:6)  
(Central Black Earth region--Runoff)

KOVALEV, Ya.K., kand. tekhn. nauk

Calculation of the turbidity of small rivers and temporary  
watercourses in the Central Chernozem provinces. Meteor. i  
gidrol. no.2:29-31 F '65.

(MIRA 18:3)

1. Voronezhskiy gosudarstvennyy universitet.

KOVALEV, Ya.K.; POPOV, A.N.

Formation of oxbow lakes in bottom lands of the Don Valley. Trudy  
VGU 42 no.4:39-41 '55. (MIRA 11:6)

(Don Valley--Lakes)

*NOV 1955*

MIL'KOV, F.N., professor; KOVALEV, Ya.K., kandidat tekhnicheskikh nauk

Heavy shower and its consequences. Priroda 44 no.10:107 0'55.  
(MLRA 8:12)

1. Voronezhskiy gosudarstvennyy universitet  
(Rain and rainfall)